

Reply to Office Action of 07/26/2005
Amendment Dated: November 28, 2005

Appl. No.: 09/975,944
Attorney Docket No.: CSCO-012/4912

REMARKS

Claims 1-30 were examined in the outstanding office action mailed on 07/26/2005 (hereafter "Outstanding Office Action"). All claims were rejected and the title was objected to. In response, specification and claims 1, 2, 10, 11, 18, 19, 24, and 26 are sought to be amended. The amendments are believed not to introduce new matter, and their entry is respectfully requested. Thus claims 1-30, as sought to be amended, are respectfully presented for reconsideration, further in view of the below remarks.

Information Disclosure Statement (IDS)

Applicant thanks the Examiner for considering and making of record the IDS filed on 2/7/02. The Examiner is also thanked for acknowledging the same in the Outstanding Office Action.

Specification

The specification is sought to be amended to fix various typographical errors. The amendments are believed not to introduce new matter, and their entry is respectfully requested.

Objections

On page 11 last line through page 12 line 4, claims 1-22 and 28-30 were objected to asserting that claims 1, 10, and 18 are incomplete claims. It was further suggested that the term "... to said 2nd edge router, ..." be added to these three claims. The three claims are sought to be amended accordingly, and withdrawal of the objection is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 1-30 were rejected under 35 USC § 112, with the assertion:

Referring to claim s 1, 10, & 18; what is meant by the limitation, "with each datagram having a corresponding layer-3 route equal to said layer-3 route, wherein said subset of layer-3 datagrams are comprised in said plurality of layer-3 datagrams"? How can a subset of a plurality of datagrams still be a plurality of datagrams?

(Page 12 lines 16-19 of the Outstanding Office Action)

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Applicants seek to explain the terms with respect to amended claim 1:

1 (Currently Amended): A method of processing a plurality of layer-3 datagrams in a first edge router, said first edge router being connected to a second edge router by a layer-2 network, said method comprising:

5 provisioning in said first edge router a plurality of virtual circuits to said second edge router on said layer-2 network, said plurality of virtual circuits being associated with a layer-3 route;

receiving in said first edge router *said plurality of layer-3 datagrams*;

10 determining in said first edge router a subset of layer-3 datagrams, with each datagram in said subset of layer-3 datagrams having a corresponding layer-3 route equal to said layer-3 route, wherein *said subset of layer-3 datagrams are comprised in said plurality of layer-3 datagrams*;

15 encapsulating each of said subset of layer-3 datagrams in a corresponding plurality of layer-2 packets, all of the plurality of layer-2 packets corresponding to some of said subset of layer-3 datagrams being encapsulated for sending on a first one of said plurality of virtual circuits and all of the plurality of layer-2 packets corresponding to some other of said subset of layer-3 datagrams being encapsulated for transmission on another one of said plurality of virtual circuits; and

20 sending said plurality of layer-2 packets related to said subset of layer-3 datagrams on said layer-2 network according to said encapsulating.

(Currently Amended Independent Claim 1, *Emphasis Added*)

For illustration, it is assumed that the first edge router receives 25 layer-3 datagrams ("plurality of layer-3 datagrams") and only 15 ("subset of layer-3 datagrams") of the 25 datagrams are to be routed on the layer-3 route ("having a corresponding layer-3 route equal to the layer-3 route").

Withdrawal of the rejection under 35 U.S.C. § 112 is respectfully requested at least in view of the above explanation.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-23 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over 30 Davie (U.S. Patent No.: 6,320,845) in view of Irish (U.S. Patent No.: 6,757,281 B1) further in view of Rochberger (U.S. Patent No.: 6,577,653 B1). The rejection is believed to be rendered moot at least in view of the amendments.

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In particular, amended claim 1 recites that:

1 (Currently Amended): A method of processing a plurality of layer-3 datagrams in a first edge router, said first edge router being connected to a second edge router by a layer-2 network, said method comprising:

5 provisioning in said first edge router a plurality of virtual circuits to said second edge router on said layer-2 network, said plurality of virtual circuits being associated with a layer-3 route;

receiving in said first edge router said plurality of layer-3 datagrams;

10 determining in said first edge router a subset of layer-3 datagrams, with each datagram in said subset of layer-3 datagrams having a corresponding layer-3 route equal to said layer-3 route, wherein said subset of layer-3 datagrams are comprised in said plurality of layer-3 datagrams;

15 encapsulating each of said subset of layer-3 datagrams in a corresponding plurality of layer-2 packets, *all of the plurality of layer-2 packets corresponding to some of said subset of layer-3 datagrams being encapsulated for sending on a first one of said plurality of virtual circuits and all of the plurality of layer-2 packets corresponding to some other of said subset of layer-3 datagrams being encapsulated for transmission on another one of said plurality of virtual circuits;* and

20 sending said plurality of layer-2 packets related to said subset of layer-3 datagrams on said layer-2 network according to said encapsulating.

(Currently Amended Independent Claim 1, *Emphasis Added*)

With respect to the illustrative example above (in the remarks section in relation to 35 U.S.C. § 112), assuming for simplicity that each layer-3 datagram is transmitted in 30 layer-2 packets, 300 cells corresponding to 10 (of the 15) layer-3 datagrams may be encapsulated for sending on a first virtual circuit and 90 cells corresponding 3 (of the 15) layer-3 datagram may be encapsulated for sending on a second virtual circuit.

The references of record, either alone, or in combination do not disclose one or more of such features of amended claim 1. Amended independent claims 10, 11 and 18 are also believed to be allowable over the art of record at least for similar reasons.

Original independent claim 23 is allowable at least in reciting the emphasized portions shown below:

35 A first edge router for processing a plurality of layer-3 datagrams, said first edge router being connected to a second edge router by a layer-2 network, said first edge router comprising:

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a memory storing data indicating that a plurality of virtual circuits are provisioned to said second edge router on said layer-2 network, said data further indicating that *said plurality of virtual circuits are associated with a layer-3 route;*
5 an inbound interface receiving said plurality of layer-3 datagrams, wherein a subset of layer-3 datagrams comprised in said plurality of layer-3 datagrams are to be transmitted on said layer-3 route;

10 a virtual circuit (VC) determination block determining to send some of said subset of layer-3 datagrams on a first one of said plurality of virtual circuits and some other of said subset of layer-3 datagrams on another one of said plurality of virtual circuits; and

an outbound interface *sending each of said subset of layer-3 datagrams on a determined one of said plurality of virtual circuits in the form of a plurality of layer-2 packets on said layer-2 network.*

(Original Claim 23, *Emphasis Added*)

15 Thus all independent claims presented for consideration are allowable over the art of record. The dependent claims are allowable at least as depending from corresponding allowable base claims.

20 Thus, all the objections and rejections are believed to be overcome. The Examiner is invited to telephone the undersigned representative at 707.356.4172 if it is believed that an interview might be useful for any reason.

Respectfully submitted,



Date: November 28, 2005

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